AMENDMENTS TO THE CLAIMS

Listing of Claims

The following listing of claims replaces all previous listings or versions thereof:

- 1. (Currently amended) A method for detecting endotoxin, comprising the steps:
 - a) incubating a sample with an isolated p12 or p12 similar bacteriophage tail protein that binds to the core region of endotoxin, and
 - b) detecting endotoxin bonded to said bacteriophage tail protein, in the presence of divalent cations.
- 2. (Currently amended) The method according to claim 1, further comprising after step a) and prior to step b) the additional step of:
 - a') separating a <u>p12</u> bacteriophage tail protein-endotoxin complex from the sample.
- 3. (Previously presented) The method according to claim 1, wherein detection comprises spectroscopic methods.
- 4. (Currently amended) A method for removing endotoxin from a sample, comprising the steps:
 - a) incubating a sample with or bringing a sample in contact with an isolated p12 or p12-similar bacteriophage tail protein that binds to the core region of endotoxin, said p12 bacteriophage tail protein being immobilised on a permanent carrier, non-specifically or directly, in the presence of bivalent ions,
 - b) separating <u>p12</u> bacteriophage tail protein-endotoxin complex from the sample wherein the permanent carrier comprises filtration media, glass particles, magnetic particles, agarose particles, sedimentation materials or filling materials for chromatography columns.

- 5. (Previously presented) The method according to claim 4, wherein steps a) and b) are implemented in a chromatography column throughflow method.
- 6. (Canceled)
- 7. (Currently amended) The method according to claim 4, the <u>p12</u> bacteriophage tail proteins being immobilised on the permanent carrier via coupling groups.
- 8. (Previously presented) The method according to claim 7, the coupling group being a lectin, receptor or anticalin.
- 9. (Currently amended) The method according to claim 7, wherein the coupling group comprises streptavidin or avidin and the <u>p12</u> bacteriophage tail proteins are coupled with biotin or a Strep-tag.
- 10. (Currently amended) The method according to claim 4, the <u>p12</u> bacteriophage tail proteins are immobilised on the permanent carrier covalently via chemical bonds.
- 11. (Currently amended) The method according to claim 1, wherein the <u>p12</u> bacteriophage tail protein comprises a Strep-tag or a His-tag.
- 12. (Previously presented) The method according to claim 1, wherein the tag comprises an amino acid sequence according to SEQ ID NO. 5, 6 or 7.
- 13. (Currently amended) The method according claim 1, wherein the <u>p12</u> bacteriophage tail protein is p12 protein of phage T4 and comprises a Strep-tag or a His-tag.
- 14. (Previously presented) The method according to claim 1, wherein the bivalent cations are Ca^{2+} in the range of 0.1 μM to 10 mM.
- 15. (Currently amended) The method according to claim 1, wherein detecting comprises detecting displacement of a fluorescence-marked endotoxin from said <u>p12</u> bacteriophage tail protein of step a).
- 16. (Currently amended) The method according to claim 4, wherein the <u>p12</u> bacteriophage tail protein comprises a Strep-tag or a His-tag.

- 17. (Previously presented) The method according to claim 4, wherein the tag comprises an amino acid sequence according to SEQ ID NO. 5, 6 or 7.
- 18. (Currently amended) The method according claim 4, wherein the <u>p12</u> bacteriophage tail protein is p12 protein of phage T4 and comprises a Strep-tag or His-tag.